Remarks

The Amendments

Claim 1 has been amended to delete the phrase "or a biologically functional

variant thereof". It is the Applicant's position that biologically functional variants of

SEQ ID NO:6 are enabled, have written description, and are not anticipated by U.S.

Patent No. 6,218,362. Applicants have deleted the phrase in order to advance

prosecution of the application and without prejudice to prosecuting the original claims of

this application in a continuing application.

Claim 2 has been amended to recite SEQ ID NO:6. This is not a narrowing

amendment and is made solely to provide a reference to a sequence listing identification

number.

Claim 4 has been amended to remove the reference to "the biologically functional

variant," similar to claim 1 (see above). Claim 4 now recites that a lantibiotic of claim 1

can comprise one or two conservative amino acid substitutions. Support for the

amendment can be found in the specification at, inter alia, the paragraph spanning pages

10 and 11.

Claims 9, 13, 16 and 24 have been canceled without prejudice to their prosecution

in a continuing application.

Claim 5 has been amended to delete reference to position number 19 and to

change the claim's dependency.

Claims 6, 7 and 8 have been amended to change their dependency.

Claim 10 has been amended to remove reference to "the biologically functional

variant", similar to the amendment of claim 1 (see above).

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New claims 32-36 have been added. Support for the claims can be found in the

specification at, inter alia, the paragraph spanning pages 10 and 11.

These amendments add no new matter and applicants respectfully request their

entry.

Objection to Claim 2

Claim 2 stands as objected to for failing to recite a SEQ ID NO. The claim has

been amended to recite SEQ ID NO:6. Applicants respectfully request withdrawal of the

objection to claim 2.

Rejection of Claims 1 and 4-25 Under Obviousness-Type Double Patenting

Claims 1 and 4-25 stand rejected under the judicially created doctrine of

obviousness-type double patenting. Claims 9, 13, 16, and 24, have been canceled. The

rejection is therefore moot as applied to these claims. Applicants respectfully traverse the

rejection as it applies to claims 1, 4-8, 10-12, 14-15, 17-23 and 25.

Claim 1 has been amended to remove reference to biologically active variants in

order to advance prosecution. It is believed that this amendment obviates the need for a

terminal disclaimer. Applicants respectfully request withdrawal of the rejection.

Rejection of Claims 1 and 4-25 Under 35 U.S.C. §112, first paragraph

Claims 1 and 4-25 stand rejected under 35 U.S.C. §112, first paragraph as

allegedly lacking written description. Claims 9, 13, 16, and 24 have been canceled. The

rejection is therefore moot as applied to these claims. Applicants respectfully traverse the

rejection as it applies to claims 1, 4-8, 10-12, 14-15, 17-23 and 25.

The Office Action asserts that the term "biologically active variants" in claim 1

does not have adequate written description. The term, however, has adequate written

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description in the specification. The specification discloses a genus of lantibiotic

molecules and certain substitutions that can occur at, for example, amino acid positions 1,

2, 4, 5, 6, 13, 19 or combinations thereof. Applicants have, however, chosen to delete the

term, without prejudice to the prosecution of the original claim in a continuing

application, in order to advance prosecution of this application. Applicants respectfully

request withdrawal of the rejection.

Rejection of Claims 1 and 4-25 Under 35 U.S.C. §112, first paragraph

Claims 1 and 4-25 stand rejected under 35 U.S.C. §112, first paragraph as

allegedly lacking enablement. Claims 9, 13, 16, and 24 have been canceled. The

rejection is therefore moot as applied to these claims. Applicants respectfully traverse the

rejection as it applies to claims 1, 4-8, 10-12, 14-15, 17-23 and 25.

The Office Action asserts that polypeptides encompassing "biologically active

variants" in claim 1 are not enabled. The polypeptides, however, has adequate

enablement. The specification discloses a genus of lantibiotic molecules and certain

substitutions that can occur at, for example, amino acid positions 1, 2, 4, 5, 6, 13, 19 or

combinations thereof. Applicants have, however, chosen to delete the term in order to

advance prosecution of the application without prejudice to prosecution of the original

claims in a continuing application. Applicants respectfully request withdrawal of the

rejection.

Rejection of Claims 1 and 4-25 Under 35 U.S.C. §102(a) and 35 U.S.C. §102(e)

Claims 1 and 4-25 stand rejected under 35 U.S.C. §102(a) and 35 U.S.C. §102(e)

as allegedly anticipated by U.S. Pat. No. 6,218,362 (the '362 patent). Claims 9, 13, 16,

and 24 have been canceled. The rejection is therefore moot as applied to these claims.

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Applicants respectfully traverse the rejection as it applies to claims 1, 4-8, 10-12, 14-15,

17-23, and 25.

The Office Action asserts that claims 1 and 4-25 are anticipated by the '362

patent, and in particular asserts that a polypeptide of SEQ ID NO:10 is anticipated by the

'362 patent. In order to advance prosecution of this application, the claims have been

amended to delete any subject matter directed to SEQ ID NO:10, without prejudice to

prosecution of the original claims in a continuing application. The '362 patent does not

teach or suggest the polypeptides of SEQ ID NO:6-9 and 11. The '362 patent similarly

does not teach or suggest SEQ ID NO:6 with substitutions specifically at amino acid

residues 1, 2, 4, 5, 6, 13, 19 or combinations thereof other than SEQ ID NO:10.

Rejection of Claims 1 and 2 Under 35 U.S.C.§102(a)

Claims 1 and 2 stand rejected under 35 U.S.C. §102(a) as allegedly anticipated by

Smith et al. Eur J Biochem. 2000 Dec;267(23):6810-6. Applicants respectfully traverse

the rejection.

Attached is an affidavit of Jeffery D. Hillman submitted under 37 C.F.R. §1.131. The

affidavit antedates the Smith reference by showing that Dr. Hillman is the inventor of the

claimed invention and that the Smith reference is not "by another". **Applicants** 

respectfully request withdrawal of the rejection in view of the affidavit.

Rejection of Claims 11-12, 15, and 18-23 Under 35 U.S.C.§103(a)

Claims 11-12, 15, and 18-23 stand rejected under 35 U.S.C. §103(a) as allegedly

obvious over Smith et al. Eur J Biochem. 2000 Dec;267(23):6810-6. Applicants

respectfully traverse the rejection.

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The affidavit of Jeffery D. Hillman (see above) demonstrates that the Smith reference is not by another. Applicants therefore respectfully request withdrawal of the rejection in view of the affidavit.

Dated: <u>Z-2-05</u>

411/100

Lisa M.W.Hillman Registration No. 43,673

Respectfully submitted,